

ON A SMALL COLLECTION OF FISH FROM THE STREAMS IN THE
BILLIGIRIRANGAN HILLS (S. INDIA).

BY

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India.)

This note deals with a small collection of fish made by Mr. R. C. Morris in the various streams in the Billigirirangan Hills on the Mysore-Coimbatore border in South India at altitudes varying from 2,500 to 5,000 feet. The collection was made at the request of Dr. S. L. Hora through the courtesy of the Bombay Natural History Society and recently sent to the Zoological Survey of India for identification. I am thankful to Dr. Hora for the opportunity of studying these fishes.

The collection comprises eight different species belonging to the families Cobitidæ, Cyprinidæ and Ophicephalidæ. All the species are known to occur in South India, and, except for a few on which notes are given below, do not call for special remarks. Mention must, however, be made of the excellent state of preservation of the material as a result of which the natural colouration of the different species is admirably preserved.

The details of localities, Kanarese local names, etc., are quoted *verbatim* from the original notes of Mr. Morris. The local names, however, are not meant to be absolutely correct, for, the collector himself remarked that he "cannot vouch for the correctness of the names."

Lepidocephalichthys thermalis (Cuv. et Val.).

1846. *Cobitis thermalis*, Cuvier et Valenciennes, *Nat. Hist. Poisson*, XVIII, p. 78.
1878. *Lepidocephalichthys thermalis*, Day, *Fish. India*, p. 610, pl. lv. fig. 3.
1927. *Lepidocephalichthys thermalis*, Rao & Seshachar, *Half-yearly Journ. Mysore Univ.*, 1, No. 2, p. 10.

The height of the body is contained from 6 to 6½ times in the length of the body excluding the caudal fin. The origin of the ventrals is vertically below the first or the second branched ray of the dorsal fin.

The upper portion of the body is clouded with irregular black spots and blotches. In fairly grown-up specimens there are from 9 to 10 blackish bands along the back. Along the lateral line, there is a series of squarish black marks. The lower portion of the body is devoid of pigmentation. The fins, except the dorsal and the caudal, are diaphanous. Both the dorsal and the caudal fins have from 4 to 5 black curved bands. In some cases, these bands are broken up into irregular dots. A deep black spot at the base of the upper lobe of the caudal fin is present in all the specimens.

The species is known to inhabit the bottom mud or sand of rivers and ponds where it usually lies buried. Sundara Raj¹ has observed how this fish dives into the sand at the bottom of an aquarium. He further remarked that the "branchial respiration appears to be insufficient in this loach. In an aquarium, it grows restless at various intervals and rises to the surface to take air, which is apparently swallowed, consequently it lives for a long time out of water."

¹ Sundara Raj, B.—"Notes on Fresh-water Fish of Madras." *Rec. Ind. Mus.*, XII, pp. 261-262, (1916).

Nine specimens varying from 30 to 45 mm. in length were collected. The species is "found in all streams, in evergreen sholas and deciduous jungle and bamboo scrub below all elevations."

"Murralli" is the local Kanarese name of this loach.

Nemachilus striatus Day.

1867. *Nemachilus striatus*, Day, *Proc. Zool. Soc. London*, p. 347.

1878 *Nemachilus striatus*, Day, *Fish. India*, p. 617, pl. cliii, fig. 8.

This species was originally described by Day from Wynaad at 3,000 ft. elevation, but his description of the species is so inadequate, and the Indian species of the genus *Nemachilus* are in such a state of confusion at present that it is difficult to be certain about the specific identity of this fish. As Dr. S. L. Hora is already tackling the problem with a view to definitely define the specific limits and characters of the different species, I refrain from giving a detailed description of *N. striatus*, but provisionally refer the South Indian specimens to this species.

There are 10 to 12 vertical black bands along the sides. The dorsal fin is of an orange colour with two black bands. The characteristic black band at the base of the caudal fin is present in all the specimens.

The fish is represented in the collection by three specimens varying from 32 to 37 mm. in length. It is "found in all streams at eastern foot of hills (elev. 3,000 ft.), place—Mavatur, name of stream—Bellaji Halla. Stream heavily shaded."

The Kanarese call this loach "*Kull-koorchi*".

Nemachilus evezardi Day.

1878. *Nemachilus Evezardi*, Day, *Fish. India*, p. 613, pl. cliii, fig. 11.

1927. *Nemachilus evezardi*, Rao & Seshachar, *Half-yearly Journ. Mysore Univ.*, I, No. 2, p. 11.

The length of the head is contained from 5 to 5½ and the height of the body from 6 to 6¾ in the length of the body excluding the caudal fin. The eyes are small and are about two diameters from the tip of the snout. The width of the inter-orbital space is almost equal to the length of the snout. The pectoral fins are shorter than the head. The nasal barbels are longer than the diameter of the orbit and almost reach the anterior fourth of the eyes.

The colouration is a faint olivaceous green with a number of vertical black bars and blotches irregularly distributed.

The species is represented in the collection by six well-preserved specimens varying from 35 to 42 mm. in length. They are "found in rocky streams at eastern foot of hills (elev. 3,000 ft.), place—Mavatur, name of stream—Bellaji Halla. Stream heavily shaded."

The Kanarese do not apparently distinguish this species from *N. striatus* as both the species are locally known as "*Kull-koorchi*".

Garra sp.

There is a single specimen about 30 mm. long which appears to agree in all essential characters with *G. lamta* (Ham. Buch.), but since all immature forms of *Garra* show a wide range of variability in respect to specific characters, I refrain from referring it to any definite species.

The specimen was found with the two species of *Nemachilus* referred to above and collected in the "rocky stream at eastern foot of hills (elev. 3,000 ft.) place—Mavatur, name of stream—Bellaji Halla. Stream heavily shaded."

Barbus dorsalis (Jerdon).

1849. *Systomus dorsalis*, Jerdon, *Madras Journ. Lit. & Sci.*, XV, p. 314.

1878. *Barbus dorsalis*, Day, *Fish. India*, p. 573, pl. cxliii, fig. 2.

1916. *Barbus dorsalis*, Sundara Raj, *Rec. Ind. Mus.*, XII, p. 255.

The species is represented in the collection by a single young specimen about 45 mm. long excluding the caudal fin. The dorsal fin is inserted slightly in

advance of the ventrals and is situated nearer to the tip of the snout than to the base of the caudal fin. There are two prominent black spots, one each at the base of the dorsal and caudal fins. These spots are often absent in adult individuals. The upper portion of the body is dusky, and the bases of the scales are blackish. The belly is yellowish white.

The species is common "in all small streams (elev. 3,000 to 5,000 ft.) in shola, deciduous and scrub jungles."

"*Kull-kooni*" is the local Kanarese name of this fish.

***Rasbora daniconius* (Ham. Buch.).**

1822. *Cyprinus daniconius* & *anjana*, Hamilton Buchanan, *Fish. Ganges*, pp. 327-329, 391, pl. xv, fig. 89.

1878. *Rasbora daniconius*, Day, *Fish. India*, p. 584, pl. cxlvi, fig. 2.

1929. *Rasbora daniconius*, Prashad & Mukerji, *Rec. Ind. Mus.* XXXI, p. 203.

The diameter of the eyes is contained from 4 to 4½ times in the length of the head; they are 1¼ to 1⅓ diameters apart. The snout is almost equal to or slightly longer than the diameter of the eyes.

The dorsum is dusky. There is a black streak running along the median dorsal line from occiput to the insertion of the caudal fin. A very prominent transverse broad black band runs along the middle of the body from the snout to the base of the caudal fin. In some specimens, the scales of the upper portion of the body have dark edges. The fins are diaphanous.

The species is represented in the collection by eight specimens, the largest being 85 mm. in length. It is "found in a big stream at Punjur (western foot of hills) elev. 2500 ft. Partially shaded, rocky and sandy."

"*Sessillu*" is the local Kanarese name of the species.

***Barilius gatensis* (Cuv. et Val.).**

1844. *Leuciscus gatensis*, Cuvier & Valenciennes, *Hist. Nat. Poisson*, XVII, p. 309, pl. 503,

1878. *Barilius gatensis*, Day, *Fish. India*, p. 592, pl. cxlix, fig. 2.

1931. *Barilius gatensis*, Mukerji, *Journ. Bombay. Nat. Hist. Soc.*, XXXV, p. 169.

Very thin maxillary barbels are present in all the specimens. The number of vertical black bars along the sides varies from 9 to 13. The dorsal fin has a triangular white outer area. The anal fin has a dark base. A bright pink band and a white outer streak run parallel to it. The pectorals and ventrals have similar pink bands. The cheek and the belly are of a light pink colour.

Seven well-preserved specimens were collected. The largest of the series is 88 mm. long. The species was found in (i) "rocky stream at eastern foot of hills (elev. 3,000 ft.), place—Marealut, name of stream—Bellaji Halla. Stream heavily shaded", and (ii) "in a big stream at Punjur (western foot of hills), elev. 2,500 ft. Partially shaded, rocky and sandy".

"*Genday*" is the local Kanarese name of this fish.

***Ophiocephalus gachua* (Ham. Buch.).**

1822. *Ophiocephalus gachua*, Hamilton Buchanan, *Fish. Ganges*, pp. 68, 367, pl. xxi, fig. 21.

1878. *Ophiocephalus gachua*, Day, *Fish. India*, p. 367.

1929. *Ophiocephalus gachua*, Prashad & Mukerji, *Rec. Ind. Mus.*, XXXI, p. 215.

Two half-grown specimens were "found in a big stream at Punjur (western foot of hills) elev. 2,500 ft. Partially shaded, rocky and sandy."

"*Kworamin*" is the local Kanarese name of the species.